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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,490	07/16/2003	Ivan Elmer Woltmann	13DV13944-3	9070
7590	04/02/2004		EXAMINER	
Robert B. Reeser, III Armstrong Teasdale LLP Suite 2600 One Metropolitan Square St. Louis, MO 63102			CASAREGOLA, LOUIS J	
			ART UNIT	PAPER NUMBER
			3746	
DATE MAILED: 04/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/620,490	WOLTMANN, IVAN ELMER
	Examiner	Art Unit
	Louis J. Casaregola	3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 6-19 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 6-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Claim Rejections - 35 USC 112

Claims 6-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6-19 recite "said pulsator between said controller and said fuel manifold" (claim 6, lines 6-7 and claim 13, lines 10-11). The cited passage is indefinite. While pulsator 60 is positioned in fuel line 50 leading to combustor manifold 44, controller 62 does not appear to be located either in line 50 or any other type of line communicating with the pulsator and combustor manifold. The term "between" thus has no clear meaning in its present context because the controller does not share a common line or path with the pulsator and manifold.

Claim Rejections - 35 USC 102

Claims 6-19 are also rejected under 35 U.S.C. 102(b) as being anticipated by Stickler et al.

The present claims read on prior art gas turbine fuel controls of the type disclosed by Stickler; note Stickler's pulser units 14 located in the fuel lines between pump 16 and fuel nozzles 11 shown in any of Figures 3, 4A or 4B, and note also the pulse

controller comprising element 19 in Figure 5 or elements 27-29 in Figure 8. As further indicated by Figure 4A, each individual pulser unit can be applied to a single fuel flow line 18, which is subdivided and connected to a plurality of nozzles via passages 18a thereby defining a fuel manifold. The structure in Strickler's combustion system is thus identical to that broadly recited in the present claims, and Strickler's fuel control must reasonably be presumed to function in a manner compatible with the broadly claimed concept of promoting stable combustion since this is an implicit requirement essential for the operation of any gas turbine combustion systems.

It is additionally noted that claims 7, 12, 17, and 19 describe the controller as "configured to pulse fuel at a frequency and amplitude that facilitates resonance avoidance" or "avoidance of natural mechanical vibrational modes". The cited language describes a mode of operation and/or a mere statement of desired results. If it is presumed that the claimed apparatus is capable of being operated in this manner, similar apparatus disclosed in the prior art must be presumed equally capable.

Additional References

Brocard et al, Iasillo et al, and Paschereit et al are cited as disclosing further

examples of gas turbine combustion systems including fuel controls with pulsator devices.

L. J. Casaregola
703-308-1027 (M-F; 7:30-4:00)
703-872-9306 FAX
April 5, 2004



LOUIS J. CASAREGOLA
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu, can be reached at 703-308-2675.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).